

Monitoring and Control Engine for Multi-Tiered Service-Level Management of Distributed Web- Application Servers

Abstract of Disclosure

A web site provides services to users over the Internet. End-user service-level objectives (SLOs) such as availability and performance are measured and reported to a SLO agent. User requests pass through several tiers at the web site, such as a firewall tier, a web-server tier, an application-server tier, and a database-server tier. Each tier has several redundant service components that can process requests for that tier. Local agents, operating with any local resource managers, monitor running service components and report to a service agent. Node monitors also monitor network-node status and report to the service agent. When a node or service component fails, the service agent attempts to restart it using the local agent, or replicates the service component to other nodes. When the SLO agent determines that a SLO is not being met, it instructs the service agent to replicate more of the constraining service components or increase resources.

